

***H**IV/AIDS is affecting and will continue to affect economies and society at all levels from the individual to the macro-economy. The most immediate effects are, of course, felt by the person who becomes sick, and then usually by his or her immediate family or household. Between the extremes of the individual and the macro-economy there are also effects on communities, enterprises and economic and social*

sectors. It is at these middle levels, which include productive sectors, that interventions may be most urgently required.

This AIDS Brief endeavours to provide some ideas as to how the productive sector of subsistence agriculture may be affected and what types of response may be required.

Background

HIV/AIDS is predominantly a sexually transmitted disease. By affecting the sexually active it affects the most productive cohorts of a population (broadly speaking those aged 15 to 50 years of age). In the subsistence agricultural sector, labour is one of the main productive resources. Subsistence agriculture is of considerable importance in most low income countries because as much as 60% of the total population may depend upon it. Even though the specific level of national dependence

varies, subsistence households are usually relatively poor and may be marginalised in ways that result in their being overlooked by planners and policy makers - for example they may be geographically remote. In planning for the impact of HIV/AIDS on these populations, we are concerned with issues of food security, the point of interface between domestic and farm labour, and existing household and community coping mechanisms and their response to increased illness and deaths.

Definition

Subsistence agriculture describes farming and associated activities which together form a livelihood strategy where the main output is consumed directly by the household, where there are few if any purchased inputs and where only a minor proportion of output is marketed. The following features of the subsistence sector are important and should be borne in mind when planning for the impact of HIV/AIDS:

1. in contrast to commercial farming, where the organisation and running of the farm often approximate a business, subsistence farming is characterised by a very close relationship between the general activities of the household (for example child care and child rearing, recreation, support relations between adult members, home maintenance, food processing) and the production of crops and care of animals to feed that household;
2. while we may talk as though there is a "subsistence" sector, there are probably few people in the world today who are entirely self-provisioning and whose household-farming activities do not bring

them into contact with the wider economy and society (for example, through marketing some of their farm produce or household handicrafts, purchasing inputs and consumer goods, paying taxes, going to work for wages on an occasional or regular basis for shorter or longer periods);

3. it may be better to speak of a range of "rural livelihood strategies" which enable rural people to combine a number of activities - the work of the home, the work of the farm, activities entered into outside of the home and farm but within the local community (such as provision of craft skills to other local households), activities entered into outside the local community (labour migration, long distance trading) - into a livelihood strategy which enables individuals and households to "provision" themselves. This being the case, then it must be noted that:
 - many of these points of interaction between the subsistence household and the wider economy and society may provide conduits for the spread of infection into or out of local communities; and

- the impact of HIV/AIDS-related illness or death will not only affect labour inputs to “farm” production, but will also affect the balance of labour available to

the household and the farm considered as one entity - the “domestic-farm interface” which was referred to above.

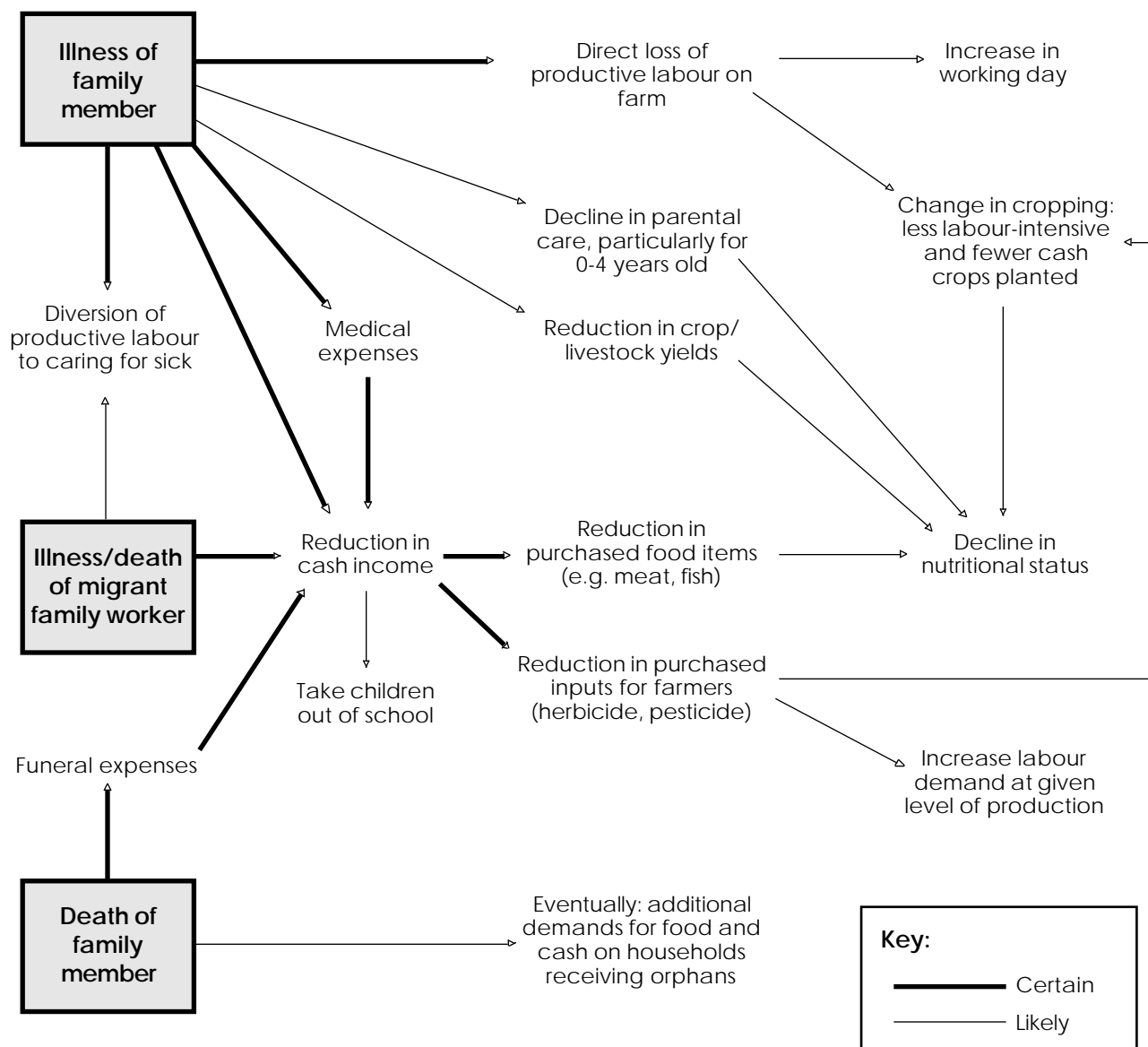
Key Elements

Labour

Subsistence production depends very heavily on human labour. Thus the social and economic impact of the epidemic on households and communities focuses on points

where domestic or farm labour supply may come under pressure. Diagram 1 shows some of the ways that HIV/AIDS may affect a subsistence household. In indicating some of the places where labour constraints may become

Diagram 1 The impact of HIV/AIDS on the household domestic-farm labour interface in subsistence communities



Source: Panos Institute (1992), *The Hidden Cost of AIDS: the Challenge of HIV to Development*, London

apparent, it also suggests areas where interventions may be appropriate and necessary - for example, pressure on a woman to nurse a sick household member may force her to make a choice between bringing another bucket of clean water for her children to drink, washing soiled bed sheets, or pruning a cash-crop one more time to ensure a good yield. Each arrow in Diagram 1 is a point at which interventions may be necessary and/or possible. As the epidemic takes hold, so the pressure on the interface between farm and domestic work becomes greater.

At each of these points, it may be possible to develop policy responses to relieve that pressure. For example, less time-consuming access to clean water may have a marked effect on the amount of time a woman has for other activities in the home, so piped water supply or improvement of a closer supply, either of which would cut down the time spent fetching water from a distant source, may help maintain standards of child care, crop and/or animal care, and household maintenance.

Climate

Labour is often a critical constraint in subsistence production, and its criticality may be closely related to climate. Where rainfall is seasonal, demand for labour is likely to be concentrated into short periods of a few months, or even (in very dry places) a few weeks. Death and illness reduce labour availability both directly through affecting productive members of the household, and indirectly through diverting labour to caring for the sick.

Both of these effects mean that during the rainy period - a period of high labour demand for land preparation, sowing and weeding - labour demand for farm work may remain unmet as urgent domestic tasks are forced to take precedence. In places where rainfall is more evenly spread through the year, demand for labour will not be so peaked, and it is probable that the impact of illness and death on the domestic-farm labour interface will initially be less intense, as the more even spread of labour demand over the year permits coping mechanisms (occasional assistance from relatives and neighbours, longer working hours, hiring labour) to come into operation.

Even so, evidence from high rainfall areas in Africa indicate that as the epidemic takes hold and the numbers of ill people and deaths in individual households become greater, there will increasingly be effective shortages of labour in some households. Thus, while rural livelihood systems in areas of low and markedly seasonal rainfall are most likely to be sensitive to epidemic-related labour loss, even in high rainfall areas HIV/AIDS can have marked impacts on the domestic-farm labour economy.

Farming System

In any rural livelihood strategy, the particular farming system is a major factor in determining the degree of stress which the epidemic will place on the domestic-farm economy.

It is possible to classify farming systems roughly in terms of their relative vulnerability to loss of labour. Different combinations of rainfall regime, soil type, and consequent extensive or restricted crop ranges, will be factors in determining a farming system's vulnerability to HIV/AIDS impact.

Diagram 2 provides an outline method for categorising different farming systems in terms of relative vulnerability. This method can be adapted to local circumstances and data availability.

Livelihood strategies and vulnerability

The particular livelihood strategies (of which subsistence farming forms one component) practised in a community, may have a role in increasing vulnerability both to the epidemic itself and to its later impacts. Some examples are presented below to illustrate these points:

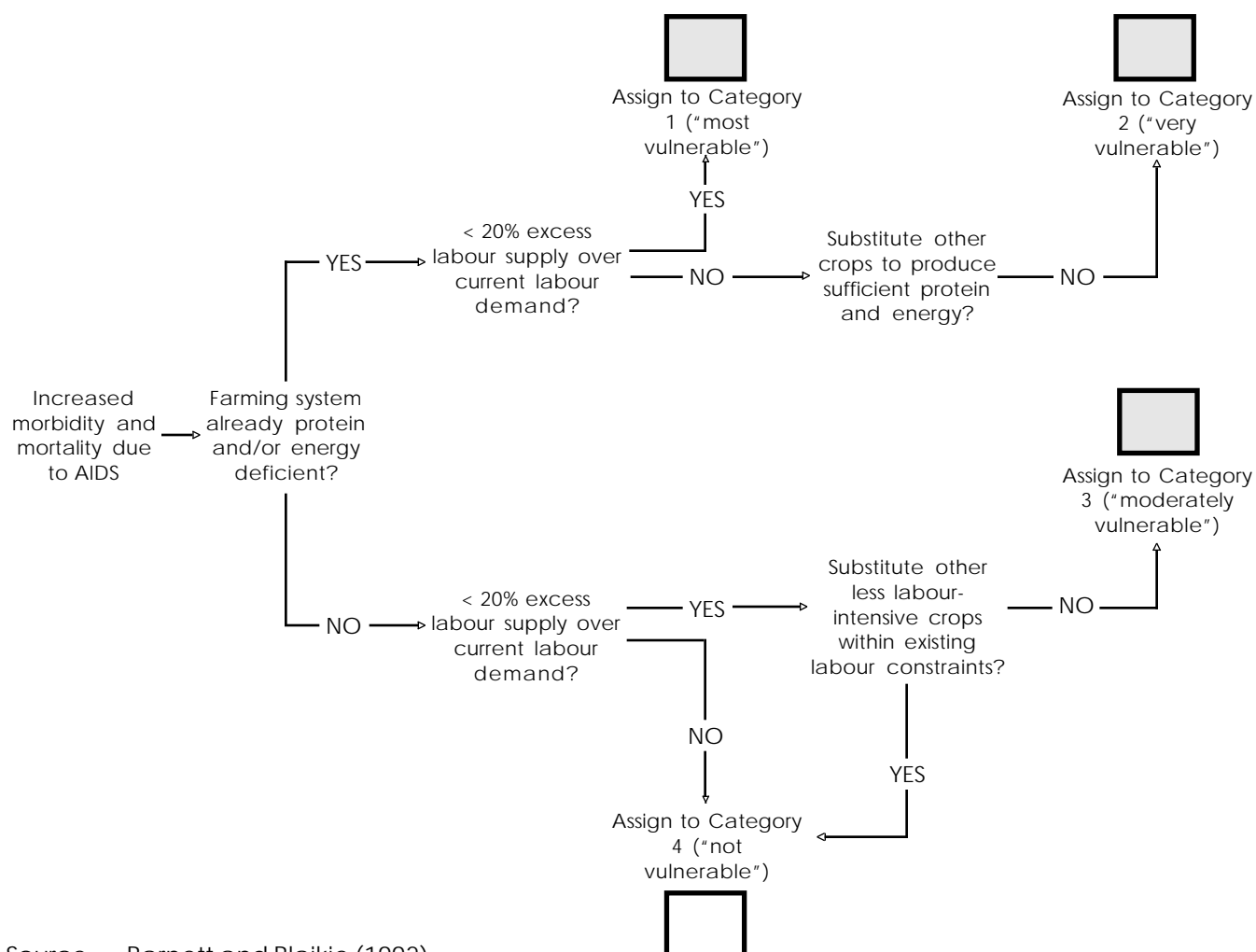
- **Vulnerability to infection:** in some places it is quite common for people to spend some periods each year as labour migrants to large commercial farms or to urban areas. The inability of rural households to provision themselves without this additional income thus exposes the men and women to infection and the household and the community to the longer term social and economic effects of their resulting illness and subsequent deaths.

In cultures where marriages are typically unstable, rates of infection are probably higher than among groups in the same country where marriages are of longer duration.

- **Vulnerability to impact:** in parts of the world where nuclear households are the norm and supportive links between such households are limited, death and illness are likely to have a more marked effect on food production, child care, make-up of diet, ability to send children to school, and care of orphans, than is the case in parts of the world where larger households or high levels of household interdependence are the norm.

Even so, research suggests that when the epidemic becomes very intense, the levels of illness and death rapidly affects the ability of quite large domestic units to provision and care for themselves. Thus, existing coping mechanisms cease to cope when excess illness and death reaches such levels as have been seen in some rural communities affected by HIV/AIDS.

Diagram 2 An algorithm for classifying the vulnerability of farming systems to loss of labour



Source: Barnett and Blaikie (1992)

Sectoral Response

Current research indicates that the impact of the epidemic may vary markedly between (a) quite small areas within regions, and (b) at least in the early stages, between wealthier and poorer households in the same community, as the former have more resources with which to cope. At national and regional levels it may be advisable to classify farming systems in terms of their relative vulnerability (see above), examine the relative rates of HIV infection (usually available in some form from the medical authorities), and combine the two sets of information so as to prioritise the types and areas of subsistence agriculture in which economic life might be earliest and latest affected.

This exercise, preferably undertaken before the epidemic has become widespread, provides a framework for both immediate and later intervention. Interventions

may include: development of labour-economising production technologies (such as intercropping, new varieties, hand tillers); labour-economising domestic technologies (such as hullers, improved storage, better access to clean water), support for orphaned children and care of the elderly whose adult children have died; inclusion of clear HIV/AIDS information in extension material and training of extension workers; and planning of rural development projects so as to take account of HIV/AIDS impact and consequent recognition that while labour may not be a constraint in the sector now, it may become a constraint in the medium term. In some communities, the impact may be so great that food aid to an area becomes necessary for some years in order to permit communities and households to recover and cope on their own again.

Checklist

☐ **Vulnerability to spread of HIV**

- ☐ multiple sexual partners
- ☐ migration for wage work
- ☐ high alcohol consumption
- ☐ proximity to transport or trading centres
- ☐ frequent interactions with market centres
- ☐ low status and limited economic independence of women
- ☐ physically damaging sexual practices
- ☐ widespread exchange of cash or favours for sexual services

☐ **Vulnerability to impact**

- ☐ dry climate
- ☐ limited range of crops
- ☐ marked labour peaks in the agricultural cycle
- ☐ labour-intensive processes
- ☐ absence of tradition of labour exchange between households
- ☐ existing pressures on the domestic-farm interface
- ☐ limited substitutability between existing labour-intensive and less labour-demanding crops
- ☐ food surpluses already low
- ☐ limited opportunities for off-farm income
- ☐ insecure land tenure

☐ **Prevention**

- ☐ access to affordable condoms
- ☐ installation of latrines (for discreet disposal of condoms)
- ☐ education on safer sex
- ☐ affordable, available, effective diagnosis/treatment of STIs
- ☐ access to safe non-sexual recreations - particularly for adolescents

- ☐ increase economic independence of women
- ☐ reduce alcohol consumption
- ☐ increase locally generated incomes, reduce migration
- ☐ integrate sex education with agricultural extension
- ☐ develop support groups for women and men to discuss problems of sexual health
- ☐ integrate information on the longer term impacts of HIV/AIDS on household income and welfare into extension programmes

☐ **Responses**

- ☐ classify farming systems in terms of potential vulnerability to increased illness and death
- ☐ explore labour-economising crop varieties
- ☐ explore labour-economising cultivation practices - e.g. development and improvement of existing inter-crops
- ☐ encourage labour exchanges between households
- ☐ explore ways of reducing women's work burden - for example labour-economising methods of food preparation, water supply, fuel supplies
- ☐ explore simple labour-saving cultivation technologies - e.g. hand tillers, draught animals
- ☐ explore ways of reducing post-harvest losses
- ☐ encourage use of bicycles for local marketing purposes
- ☐ introduce and improve poultry and small stock appropriate to local culture, to improve diets
- ☐ use paddocking for larger stock as a way of economising on labour used in herding
- ☐ ensure that orphaned children receive adequate education in local farming techniques
- ☐ review land tenure arrangements to protect the occupancy and inheritance rights of widows and orphaned children

Useful References

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